

## CAPACITOR WITH THERMO-SEALED POLYMERIC CASE FOR IMPLANTABLE MEDICAL DEVICE

### Abstract of the Disclosure

An electrolytic capacitor with a polymeric housing in the form of a pocket  
5 defining a chamber, with an opening along a selected edge. The opening has opposed  
sides that are sealed together to provide a seam. A number of conductive layers are  
positioned within the chamber, and a feed-through conductor element has a first end  
electrically connected to the layers. An intermediate portion of the feed through passes  
through the seam, and an external portion extends from the housing. The housing may  
10 be vacuum formed high density polyethylene, with the feed-through contained in an  
elastomeric sleeve having a flattened cross section to be readily received in the seam,  
and to accommodate thermal expansion differences between the housing and the  
feedthrough. The device may be manufactured by inserting a stack of layers in the  
pocket, and thermally welding across the opening of the pocket on a single weld line.